

WHAT IS CLAIMED IS:

1. A storage subsystem, comprising:

5 at least one storage device; and

a storage virtualization controller, wherein the storage virtualization controller is communicatively coupled to the at least one storage device, and wherein the storage virtualization controller is operable to:

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generate operating system metadata for the at least one storage device, wherein the operating system metadata emulates a storage volume hosted under a first operating system; and

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send the operating system metadata to a host computer system, wherein the host computer system runs the first operating system, and wherein the operating system metadata enables the host computer system to recognize the storage device as the storage volume hosted under the first operating system.

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2. The storage subsystem of claim 1,

wherein the operating system metadata enables a block storage I/O stack in the first operating system on the host computer system to recognize the storage device as a partition.

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3. The storage subsystem of claim 1,

wherein the operating system metadata enables a block storage I/O stack in the first operating system on the host computer system to recognize the storage

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device as a host-virtual object.

4. The storage subsystem of claim 1,

5 wherein the operating system metadata enables a driver on the host computer system to recognize the storage device as an enclosed volume, wherein the driver is layered above a block storage I/O stack in the first operating system.

10 5. The storage subsystem of claim 1,

wherein the storage virtualization controller is operable to configure the operating system metadata in response to a requirement of the first operating system.

15 6. The storage subsystem of claim 1,

wherein a management environment is configured to supply operating system types and operating system metadata configuration requirements to the storage virtualization controller, wherein the operating system types
20 comprise the first operating system.

7. The storage subsystem of claim 1,

wherein in generating the operating system metadata for the storage device, the
25 storage virtualization controller is operable to add a storage property to identify an offset and a length of the storage volume.

8. The storage subsystem of claim 1,

30 wherein an operation is provided to configure operating system types and

operating system metadata configuration requirements for generating the operating system metadata, wherein the operating system types comprise the first operating system.

5 9. The storage subsystem of claim 1,

wherein the storage virtualization controller is operable to receive user input to select one of a plurality of operating system types for the operating system metadata, wherein the operating system types comprise the first operating system.

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10. The storage subsystem of claim 1,

wherein the storage virtualization controller is operable to send an operating system metadata configuration instruction to the storage device through a vendor-unique I/O request to the storage device.

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11. The storage subsystem of claim 1,

wherein the operating system metadata emulates a storage volume hosted under a first operating system and one or more additional operating systems; and

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wherein the operating system metadata enables a layered driver on the host computer system to recognize the storage device.

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12. The storage subsystem of claim 1,

using a layered driver on the host computer system to provide access to a storage volume mapped within a Logical Unit, wherein the Logical Unit is provided by an external device or an external virtualization layer.

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13. The storage subsystem of claim 1,
wherein a management environment is configured to supply a preferred name of
5 the storage device to software on the host computer system.
14. A method comprising:
generating operating system metadata for a storage device, wherein the operating
10 system metadata emulates a storage volume hosted under a first operating
system; and
sending the operating system metadata to a host computer system, wherein the
host computer system runs the first operating system, and wherein the
15 operating system metadata enables the host computer system to recognize
the storage device as the storage volume hosted under the first operating
system.
15. The method of claim 14,
20 wherein the operating system metadata enables a block storage I/O stack in the
first operating system on the host computer system to recognize the storage
device as a partition.
- 25 16. The method of claim 14,
wherein the operating system metadata enables a block storage I/O stack in the
first operating system on the host computer system to recognize the storage
device as a host-virtual object.

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17. The method of claim 14,
- wherein the operating system metadata enables a driver on the host computer system to recognize the storage device as an enclosed volume, wherein the driver is layered above a block storage I/O stack in the first operating system.
18. The method of claim 14, further comprising:
- configuring the generating the operating system metadata in response to a requirement of the first operating system.
19. The method of claim 14,
- wherein the generating the operating system metadata for the storage device is performed by a storage virtualizer; and
- wherein a management environment is configured to supply operating system types and operating system metadata configuration requirements to the storage virtualizer, wherein the operating system types comprise the first operating system.
20. The method of claim 14,
- wherein the generating the operating system metadata for the storage device comprises adding a storage property to identify an offset and a length of the storage volume.
21. The method of claim 14,

wherein an operation is provided to configure operating system types and operating system metadata configuration requirements for the generating the operating system metadata, wherein the operating system types comprise the first operating system.

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22. The method of claim 14, further comprising:

receiving user input to select one of a plurality of operating system types for the operating system metadata, wherein the operating system types comprise the first operating system.

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23. The method of claim 14, further comprising:

sending an operating system metadata configuration instruction to the storage device through a vendor-unique I/O request to the storage device.

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24. The method of claim 14,

wherein the operating system metadata emulates a storage volume hosted under a first operating system and one or more additional operating systems; and

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wherein the operating system metadata enables a layered driver on the host computer system to recognize the storage device.

25 25. The method of claim 14,

using a layered driver on the host computer system to provide access to a storage volume mapped within a Logical Unit, wherein the Logical Unit is provided by an external device or an external virtualization layer.

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26. The method of claim 14,

wherein a management environment is configured to supply a preferred name of
the storage device to software on the host computer system.

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27. A carrier medium comprising program instructions, wherein the program
instructions are computer-executable to implement:

generating operating system metadata for a storage device, wherein the operating
10 system metadata emulates a storage volume hosted under a first operating
system; and

sending the operating system metadata to a host computer system, wherein the
host computer system runs the first operating system, and wherein the
15 operating system metadata enables the host computer system to recognize
the storage device as the storage volume hosted under the first operating
system.

28. A system comprising:

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means for generating operating system metadata for a storage device, wherein the
operating system metadata emulates a storage volume hosted under a first
operating system; and

25 means for sending the operating system metadata to a host computer system,
wherein the host computer system runs the first operating system, and
wherein the operating system metadata enables the host computer system
to recognize the storage device as the storage volume hosted under the first
operating system.

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